

# Agenda

## Advanced Power Electronics Interfaces for DE Workshop

Thursday, August 24, 2006

**Sponsor: California Energy Commission**

**Location: 1516 9th Street Sacramento, CA**

A WORKSHOP TO FOCUS ON THE STATUS OF DEVELOPMENT OF ADVANCED POWER ELECTRONIC INTERFACES FOR DISTRIBUTED ENERGY APPLICATIONS AND A DISCUSSION OF MODULAR POWER ELECTRONICS, COMPONENT MANUFACTURING, AND POWER ELECTRONIC APPLICATIONS

8:00 - 8:10 Welcome and Introductory Remarks, *Mark Rawson, California Energy Commission*

8:10 - 8:25 Power Electronics - A DOE Perspective, *Bill Parks, DOE (Invited)*

8:25 - 8:40 Power Electronics Research Assessment, *Forrest Small, Navigant*

### **Session 1: Experience with Modular Power Electronics - Chair: Bernard Trenton, CEC**

EXPERIENCE WITH MODULAR POWER ELECTRONICS FROM THE POWER ELECTRONICS BUILDING BLOCK PROGRAM, INTEGRATED POWER ELECTRONICS MODULES AND BRICKS AND BUSES APPROACH

8:40 - 9:00 PEBB Program Experience, *Terry Ericson, Office of Naval Research*

9:00 - 9:20 Modular Power Electronics, *Fred Wang, Virginia Tech*

9:20 - 9:40 Bricks and Buses, *Giri Venkataramanan, University of Wisconsin*

9:40 - 10:00 **General Discussion**

**10:00 - 10:30 BREAK**

### **Session 2: Advanced Concepts and Components - Chair: Dick DeBlasio, NREL**

ADVANCED CONCEPTS FOR POWER ELECTRONICS CONVERTER DESIGNS INCLUDING MATRIX AND MULTI-PORT CONVERTER, MANUFACTURING POWER ELECTRONIC COMPONENTS AND ADVANCED FUNCTIONALITY FOR DISTRIBUTED ENERGY APPLICATIONS.

10:30 - 10:50 Advanced Topologies, *Ned Mohan, University of Minnesota*

10:50 - 11:10 Integrated Modules Simplify Systems Design, *John Mookken, SEMIKRON Inc.*

11:10 - 11:30 Power Electronic Interfaces, *Ben Kroposki, NREL*

11:30 - 12:00 **General Discussion**

**12:00 – 1:00 Lunch (on your own)**

### **Session 3: Modular Power Electronics Distributed Energy Applications - Chair: Jose Palomo, CEC**

HIGH VOLUME POWER ELECTRONICS DESIGN AND MANUFACTURING CHALLENGES AS WELL AS CURRENT DISTRIBUTED ENERGY APPLICATIONS THAT USE THE MODULAR APPROACH

1:00 – 1:20 High Volume Power Electronics, *Ian Wallace, Eaton*

1:20 – 1:40 PowerModule - *Perry Schugart - American Superconductor*

1:40 – 2:00 Modular Inverters, *Matt Zolot, UQM*

2:00 – 2:30 **General Discussion**

**2:30 – 3:00 BREAK**

### **Session 4: Chair: Power Electronics for Distributed Energy Applications - Chair: Holly Thomas, NREL**

CURRENT POWER ELECTRONICS IN THE RENEWABLE AND DISTRIBUTED ENERGY MARKETS

3:00 – 3:20 Magnetek Power Electronics - *Alex Levran, Magnetek, Inc.*

3:20 – 3:40 Xantrex Power Electronics – *Ray Hudson, Xantrex*

3:40 – 4:00 Northern Power Applications, *Jonathan Lynch, Northern Power Systems*

4:00 – 4:20 SMA Power Electronics – *Kent Sheldon, SMA*

4:20 – 5:00 **Wrap-up for the day and general discussion**